

IN THE
UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s): Daniel B. Roitman, et al.

Serial No.: N/A

Examiner: N/A

Filing Date: Herewith

Group Art Unit: N/A

Title: NEAR-FIELD AND FAR-FIELD ENCODING AND SHAPING OF MICROBEADS FOR BIOASSAYS

COMMISSIONER FOR PATENTS
PO Box 1450
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Sir:

This Information Disclosure Statement is submitted:

- ☒ under 37 CFR 1.97(b), or
(Within three months of filing national application; or date of entry of national application; or before mailing date of first office action on the merits; whichever occurs last)
- ☐ under 37 CFR 1.97(c) together with either a:
☐ Statement under 37 CFR 1.97(e), or
☐ a \$180.00 Processing fee under 37 CFR 1.17(p), or
(After the CFR 1.97 (b) time period, but before final action or notice of allowance, whichever occurs first)
- ☐ under 37 CFR 1.97 (d) together with a:
☐ Statement under 37 CFR 1.97(e), and
☐ a \$180.00 processing fee under 37 CFR 1.17(p).
(Filed after final action or notice of allowance, whichever occurs first, but before payment of the issue fee)

Please charge to Deposit Account 50-1078 the sum of \$0.00 . At any time during the pendency of this application, please charge any fees required or credit any overpayment to Deposit Account 50-1078 pursuant to 37 CFR 1.25.

☒ Applicant(s) submit herewith Form PTO 1449. References identified with an asterisk (*) were disclosed in Patent Application No. 10/379,107 filed 03/04/2003, now U. S. Patent No. _____, and, as such, copies thereof are not included pursuant to the provisions of 37 CFR 1.98(d).

☐ A concise explanation of the relevance of foreign language patents, foreign language publications and other foreign language information listed on PTO Form 1449, as presently understood by the individuals(s) designated in 37 CFR 1.56 (c) most knowledgeable about the content is given on the attached sheet, or where a foreign language patent is cited in a search report or other action by a foreign patent office in a counterpart foreign application, an English language version of the search report or action which indicates the degree of relevance found by the foreign office is listed on form PTO 1449 and is enclosed herewith.

"Express Mail" label no. EV022276458US

Date of Deposit 09/24/03

I hereby certify that this is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to: Commissioner for Patents, PO Box 1450, Alexandria, VA 22313-1450.

By _____

Typed Name: Jacob N. Erlich

Respectfully submitted,

Daniel B. Roitman, et al.

By _____

Jacob N. Erlich

Attorney/Agent for Applicant(s)
Reg. No. 24,338

Date: 09/24/2003

FORM PTO-1449 LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT (Use several sheets if necessary)	ATTY. DOCKET NO.	SERIAL NO.
	10030589-1	N/A
	APPLICANT Daniel B. Roitman et al.	
	FILING DATE Herewith	GROUP N/A

REFERENCE DESIGNATION

U.S. PATENT DOCUMENTS

EXAMINER INITIAL	*	DOCUMENT NUMBER	DATE	NAME
	*	4,390,452	06/28/83	Stevens
	*	5,266,222	11/30/93	Willis et al.
	*	5,294,476	03/15/94	Calhoun
	*	5,568,555	10/22/96	Shamir
	*	5,891,738	04/06/99	Soini et al.
	*	6,002,250	12/14/99	Hoch et al.
	*	6,100,026	08/08/00	Nova et al.
	*	6,266,459	07/24/01	Walt et al.
	*	6,274,323	08/14/01	Bruchez et al.
	*	6,284,459	09/04/01	Nova et al.

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	NAME	TRANSLATION	
					YES	NO
	*	WO 00/16893	03/30/00	Dames et al.		x
		WO 00/63695 ✓	10/26/00	De Smedt et al.		X
	*	WO 01/25002	04/12/01	Natan et al.		X

OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, etc.)

	*	I. Sander, White paper: Fluorescent Multilayer Optical Data Storage. Retrieved from www.semiconductorfabtech.com/datatech/journals/edition6/section1.shtml . Last updated 2000.
	*	U.E. Spichiger, T. Nezel, G. Zhylyak, T. Hug, M. Linnhoff, S. Spichiger, A. Falker, G. Mohr. Miniaturized Chemical Sensors (MICS). Retrieved from www.chemsens.ethz.ch/HTMLPresentationFolder1/index.htm . July 2, 2001.
	*	Colburn, M. et al. Step and Flash Imprint Lithography: A New Approach to High-Resolution Patterning. Retrieved from www.sfil.org/research/papers/spie99.pdf . 1999.

EXAMINER	DATE CONSIDERED
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EXAMINER INITIAL	*	DOCUMENT NUMBER	DATE	NAME
	*	6,327,410	12/04/01	Walt et al.
	*	6,328,700	12/11/01	Rheinhardt et al.
	*	6,331,273	12/18/01	Nova et al.
	*	6,338,935	01/15/02	Alperovich et al.
	*	6,355,431	03/12/02	Chee et al.
		6,479,395	11/12/02	Smith et al.

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	NAME	TRANSLATION	
					YES	NO

OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, etc.)

	*	D. J. Resnick and D. P. Mancini. Release Layers for Contact and Imprint Lithography. Retrieved from www.e-insite.net/semiconductor/index.asp?layout=aarticle&articleid=CA218639 . Last updated 2003.
	*	Low-Surface-Energy Photoresist as a Medium for Optical Replication. LLE Review, Vol. 66. Jan-Mar 1996.
	*	A. A. Dias, J. Jansen and M. Dorsch. Amide Acrylate versus Urethane Acrylate Monomers in Radiation Curing Formulations. Retrieved from www.radtech-europe.com/diaspagejune.html . June 2002.

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					YES	NO

OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, etc.)

*	R. Mehnert, A. Sobottka, C. Elsner. Microstructured Polyacrylate Surfaces Generated by UV&EB Curing. Retrieved from www.radtech-europe.com/downloadpapersmay.html . May 2002.
*	UCSD Researchers Fabricate Tiny "Smart Dust" Particles Capable of Detecting Bioterrorist and Chemical Agents. Retrieved from www.ucsdnews.ucsd.edu/newsrel/science/mcsmartdust.htm . October 3, 2002.
*	T. Pratt. Removable Media Storage Devices. White Paper, retrieved from www.dell.com . March 2000.

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*	R. H. Lyons. A Molecular Biology Glossary. July 2, 1998. Retrieved from www.seqcore.brcf.med.umich.edu .
*	S. M. Lemon and A. G. Barbour. Molecular biology glossary for IDSAA: Glossary of terms commonly used in molecular biology. 1993. Retrieved from www.med.unc.edu .
*	Assays, labeling, signaling & detection glossary. May 20, 2002. Retrieved from www.genomicglossaries.com .

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		Optical Waveguide Grating Coupler Sensor Chip. Retrieved from www.microvacuum.com/products/biosensor/OW3200.asp . Last updated 2002. ✓
		2001/0029049 A1. 10/11/01. Walt et al.
	*	2002/0022237 A1. 02/21/02. Xiong et al.

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OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, etc.)

*	2002/0098426 A1. 07/25/02. Sreenivasan et al.
*	2002/0098446 A1. 07/25/02. Alperovich et al.
*	2002/0104762 A1. 08/08/02. Stonas et al.
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FORM PTO-1449

LIST OF PATENTS AND PUBLICATIONS FOR
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10030589-1

SERIAL NO.

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Daniel B. Roitman et al.

FILING DATE

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OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, etc.)

		2003/0082587 A1. 05/01/03. Seul et al.
	*	2003/0003436 A1. 01/02/03. Willson et al.
		2003/0148379 A1. 08/07/03. Roitman et al.
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	D.S. Burgess. Photobleaching Offers Coded Microspheres. Retrieved from http://www.photonics.com/specra/tech/XQ/ASP/techid.1549/%20placement.HomeIndex/QX/read.htm . May, 2003.
	K. Braeckmans et al. Encoding microcarriers by spatial selective photobleaching. Retrieved from http://www.nature.com/cgi-taf/DynaPage.taf?file=/nmat/journal/v2/n3/abs/nmat828.html . February 2, 2003.
	K. Braeckmans. Encoding of Microcarriers. Retrieved from http://allserv.rug.ac.be/farmserv/biofys/staff/kevin_braeckmans.htm . Copyright 2002. Last updated April 9, 2003.

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	K. Braeckmans et al. Scanning the Code. Modern Drug Discovery. February 2003, pp. 27-32.
	U.S. patent application serial no. 10/379,107 entitled NEAR-FIELD AND FAR-FIELD ENCODING OF MICROBEADS FOR BIOASSAYS, filed March 4, 2003, Roitman et al. (parent to the present application).
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